T / F / IHW-31547 CO RP

WWC COMM # 108255744
PROJ. MGR. M. Arthur

November 19, 2004

(281) 600-1000
(281) 600-1001 (fax)

Received
NOV 23 2004
Remediation Division
Corrective Action Section

Mr. Mark Arthur, P.G.
Project Manager
Team 1, Corrective Action Section
Remediation Division-MC127
Texas Commission on Environmental Quality
P.O. Box 13807
Austin, Texas 78711-3087

Project No. 0014419/0030

ERM

WST IHW/ REPORTS
1st ID: 31547 Vol: 007 Date: 11/19/2004
BBC: 50156883
IBC: 322510

Subject: Response to TCEQ Comments Dated October 8, 2004
Revised Affected Property Assessment Report,
Former Houston Wood Preserving Works Facility,
Union Pacific Railroad Company,
SWR No. 31547, EPA ID No. TXD000820266

Dear Mr. Arthur:

Environmental Resources Management (ERM) is providing this letter on the behalf of Union Pacific Railroad (UPRR) Company in response to the Texas Commission on Environmental Quality (TCEQ) comment letter dated October 8, 2004. The October 8, 2004 letter provided acceptance that notification requirements under 30 Texas Administrative Code (TAC) §350.55 have been fulfilled for this property. In addition, the letter provided comments to the *Revised Affected Property Assessment Report* (APAR), dated June 10, 2004.

As requested in the comment letter, a response to each comment is provided as Attachment 1 of this letter. UPRR understands the importance of this site and acknowledges TCEQ's and the Environmental Protection Agency's (EPA's) commitment to this project. The agencies' commitment to this site is evident in the October 8, 2004 letter from the TCEQ regarding EPA's Strategic Plan – 2008 Corrective Action Baseline and the objectives outlined in that letter for measuring progress toward attainment of site closure milestones. UPRR shares the same objective as the TCEQ and EPA in making progress towards the remediation phase of this project while continuing to focus on protecting human health. Given the compendium of information regarding this site and the objective outlined above, UPRR believes the additional site investigation activities should be focused on the collection of data needed to complete the risk assessment and evaluate whether active remediation is necessary.

RECEIVED
DEC 6 2004
TCEQ - CENTRAL FILE ROOM

The investigation activities have been performed in accordance with the TCEQ-approved RCRA Facility Investigation (RFI) Work Plan (Industrial Compliance, 1994b). The Work Plan authorized a strategy that was based on evaluating the site as a whole, rather than each solid waste management unit (SWMU). UPRR continues to believe that this is the best strategy for this site because detailed knowledge of the historical operations is simply not available. What is available is a tremendous amount of analytical data regarding the

concentrations of constituents of concern in the environmental media. Based on these data, UPRR would like to recognize for TCEQ the likelihood that (1) a remedy will be necessary to address the removal of the phase-separated hydrocarbon to the extent practical; (2) a soil remedy on site that protects site workers from elevated concentrations in soil will be necessary; and (3) a long-term remedy to address elevated ground water concentrations off site will be necessary. UPRR is sharing this vision with the TCEQ so that TCEQ has perhaps a greater understanding of the intended use of the RFI data.

EPA has published guidelines that are consistent with the Work Plan such as the risk-based approach described fully in *EPA's Handbook of Groundwater Protection Cleanup* and *EPA's Corrective Action Strategy for RCRA*. Both documents state that sufficient information needs to be collected to evaluate whether potential source areas (SWMUs) could represent an on-going release/risk to human health or the environment and to develop an appropriate remedy. UPRR believes that the progress made to date is approaching this goal.

In areas near the property boundary or in residential areas, UPRR agrees to complete additional field investigation activities in an effort to define the location of the Protective Concentration Limit Exceedance (PCLE) Zone. Within the property boundary and within the PCLE Zones, UPRR proposes to collect information that is needed to design the remedy for this site. This is the approach that has been used in developing the responses to TCEQ comments.

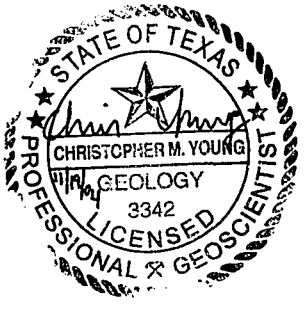
UPRR is prepared to complete activities outlined in this response within 120 days of acceptance of the response to the TCEQ comments.

ERM and UPRR appreciate the opportunity to provide a response to your comments. Should you have any questions, please do not hesitate to contact Mr. Geoffrey Reeder of UPRR at (281) 350-7197 or Mr. Christopher M. Young of ERM at 281-600-1097.

Sincerely,

Environmental Resources Management

Christopher M. Young, P.G.
Project Manager



Paul A. Stefan, P.G.
Principal

CMY/PAS/fr
Attachments

cc: Mr. Geoffrey Reeder, Union Pacific Railroad Company
Ms. Marsha Hill, Waste Program Manager, TCEQ Region 12 Office (Houston)

Response to Comments

Attachment 1

November 19, 2004
Project No. 0014419/0030

Environmental Resources Management
15810 Park Ten Place, Suite 300
Houston, Texas 77084-5140
(281) 600-1000

ATTACHMENT 1

For ease of your review, each of the TCEQ comments from the October 8, 2004 letter are presented below followed by UPRR's response. Proposed sample locations may be adjusted based on field and access conditions.

TCEQ COMMENTS:

1. Revise *Section 2.2.2 Water-Well Survey* (page 6) to summarize the findings of additional efforts completed to identify neighborhood water-well locations and use.

RESPONSE:

UPRR will revise *Section 2.2.2 Water-Well Survey* in the June 10, 2004 Revised APAR. As TCEQ is aware, two public meetings were conducted on November 13, 2003 and September 8, 2004. At each of these meetings, residents were asked if they had or knew of any water wells in their neighborhood or on their property. The results of surveys at these meetings will be provided in the revised *Section 2.2.2 Water-Well Survey*.

2. The following information is needed for the Tier 1 Ecological Exclusion Criteria Checklist: a) complete the assessments of the drainage ditches (SWMU 2) and inactive wastewater lagoon (AOC6); b) further evaluate the ecological habitat in the area of the drainage ditches (if affected property exists offsite along the ditch(es)) and inactive wastewater lagoon (AOC 6); and, c) use the information from 2.a and 2.b to determine if these areas meet the exclusion criteria in Part II of the checklist.

RESPONSE:

A complete ecological assessment will be conducted on the drainage ditches (SWMU 2) and the inactive wastewater lagoon (AOC 6) to assess their habitat value. Photographic documentation of the aforementioned areas will accompany the written evaluation. Habitat requirements for species listed on both the State and Federal Threatened and Endangered species lists will be assessed to determine if areas of suitable habitat for these species exists at the site. Information gathered will be utilized to evaluate if the areas meet the exclusion criteria in Part II of the checklist. This information will be provided in an addendum to the Revised APAR.

3. Revise *Section 3.1 Identification of Source Areas* (page 8) to identify the basis for determining that an RFI of AOCs 3, 4, 5, and 7 was not required. Please note that a survey is required for underground utilities at affected property to determine whether they are threatened or affected, or may be or are known preferential migration pathways for contamination.

RESPONSE:

The RFI Work Plan (Industrial Compliance, 1994A) did not include Areas of Concern (AOCs) 3, 4, 5, and 7. The 1994 Work Plan gave a brief explanation for not including the AOCs in the investigation, which are cited below:

- *AOC 3 Contaminated Portion of City Water Line*

  As indicated in the September 9, 1993, Response to U.S. Environmental Protection Agency (EPA) RFA Information Request, a leak in a pump seal allowed low levels of phenols to enter the potable water supply line on-site. The seal was repaired and the pipelines flushed; a new piping system for potable water may have been installed. The water supply was retested and confirmed safe for drinking. Since the city water line is not a potential source of contamination, it is excluded from this RFI.

- *AOC 4 Location of Former Incinerator*

  As indicated in the September 9, 1993, SPTCo Response to EPA RFA Information Request, the incinerator was used to burn wood trimmed from the green ties in the framing mill and adzing plant prior to treatment of the ties. Since the incinerator did not receive treated materials, it is excluded from this RFI.

- *AOC 5 City Storm Sewer*

  As indicated in the September 9, 1993, SPTCo Response to EPA RFA Information Request, sap water was discharged to the sanitary sewer under permit periodically between 1975 and 1979; sap water was not discharged to the storm sewer. Further, the September 9, 1993, SPTCo letter indicates that a leak (which was repaired) in the steam system temporarily allowed blow-down water to enter the storm sewer in October 1980 and cooling tower water to discharge temporarily into the storm water system in February 1982. Since the storm sewer is not a source of contamination, it is excluded from the RFI.

- *AOC 7 Location of Former UST No. 44-023-21*

  UST 44-023-21, used to store gasoline, was clean-closed under the authority of the Texas Water Commission (TWC; predecessor agency to the TNRCC) in 1990; analytical results indicated that total petroleum hydrocarbons (TPH) and benzene were not detected at the respective detection limits. Toluene (18 µg/kg), ethylbenzene (5.1 µg/kg), and total xylenes (44 µg/kg) were detected. Based on closure of this tank, it is excluded from this RFI.

Information regarding underground utilities located on site has been provided to TCEQ in the June 10, 2004 Revised APAR. Additional information regarding the location of on-site utilities is not readily available because the operating facility closed in 1985 and has been dismantled. The records reviewed for the preparation of the June 10, 2004 Revised APAR did not reveal the location of on-site underground utilities. UPRR will review available documents again in an attempt to assess the location of underground utilities. Concurrent with the ecological assessment of the site (response to comment No. 2), a visual inspection for the presence of manholes or storm sewer drains will be conducted.

If additional data become available, the text and figures in the Addendum to the Revised APAR will be updated accordingly.

4. Revise *Section 3.2 Description of Source Areas* (pages 9-10) to describe how wastewater and sludge were generated and managed (conveyed, treated, and disposed) during the active life of the facility. Provide a site figure illustrating your response.

RESPONSE:

In preparation of the APAR, UPRR reviewed a tremendous amount of data relating to this facility. Unfortunately, information concerning how the wastewater and sludge were generated and managed was not available. UPRR will re-evaluate the available documents.

5. Revise the *Section 3.4 Previous On-Site Remediation* (page 11) to provide a figure identifying the location of the two petroleum storage tank removals and the dimensions (horizontal and vertical) of previous soil removals at the drainage ditch (SWMU 2), inactive wastewater lagoon (AOC 6), and at any other SWMU/AOC. Revise the text to: a) summarize the previous soil removals and indicate how the excavated areas were restored; and, b) indicate how the southern drainage ditch became heavily contaminated.

RESPONSE:

UPRR will review historical information to estimate the location of the two petroleum storage tanks and the dimensions of soil removed at the drainage ditch (SWMU 2) and inactive wastewater lagoon (AOC 6). As requested, any additional information will be depicted on a new figure and provided as part of the Addendum to the Revised APAR.

If available, the details of sources of constituents of concern, soil removal, and backfill activities for these areas will be summarized in the Addendum to the Revised APAR *Section 3.4 Previous On-Site Remediation.*

6. Provide geologic cross-sections which show the information as instructed by *Attachment 2F Cross-Sections* of the APAR Form (page 9). The number of cross-sections should be adequate to illustrate the areas exceeding assessment levels (affected property) and PCLE zones for each media, and the extent of non-aqueous phase liquid (NAPL).

RESPONSE:

Attachment 2F Cross-Sections of the APAR Form requires the following information to be included on the cross-sections:

Required Cross-Section Information	Provided	To be Provided*
Boring or well ID and location	Yes	
Interpolated stratigraphy between each boring/monitor well from the ground surface to the maximum depth assessed using the boring logs and monitor wells	Yes	
Ground water-bearing units	Yes	
Areas exceeding the residential assessment levels for each media		Yes
Areas exceeding the higher of background or MQL if a groundwater assessment has not been conducted	Yes	
Distribution of NAPL		Yes
Potentiometric surface or water table based on static groundwater level in each monitor well	Yes	
Monitor well screened intervals	Yes	
Aquitards	Yes	

Required Cross-Section Information (Cont'd)	Provided	To be Provided*
Structural features or other migration pathways		Yes
Subsurface conduits		Yes
Compass directions of the cross section	Yes	

*Information will be provided where available.

In addition, in an effort to better visualize the extent of the PCLE zones and non-aqueous phase liquid (NAPL), additional short segment cross-sections will be created for the following areas:

- A north-south short segment cross-section through the Recent Process Area;
- A north-south short segment cross-section through the Original Process Area;
- A short segment cross-section of the eastern portion of existing cross-section A-A' (near the Recent and Original Process Areas); and
- A short segment cross-section of the eastern portion of existing cross-section C-C' (near the Recent and Original Process Areas).

7. Complete an underground utility survey as instructed by the APAR Form. Conduct assessment, as necessary, to determine whether an underground utility is threatened, affected, or a preferential migration pathway for contamination.

RESPONSE:

UPRR will perform a site inspection and review of available information in an effort to locate underground utilities.

8. The soil assessments for the southern drainage ditch (SWMU 2) and AOC 6 are unacceptable. Therefore, propose how SWMU 2 and AOC 6 will be assessed to determine whether chemicals of concern (COCs) are present above assessment levels and critical PCLs, and if so, delineate the extent (horizontal and vertical) of the COCs to define the affected environmental media and PCLE zones.

RESPONSE:

UPRR will perform additional sampling in the southern drainage ditch (SWMU 2) and AOC 6. Sediment samples will be collected from the southern drainage ditch (SWMU 2). Fourteen samples (SB-85 through SB-98) will be collected on a 200-foot interval along the length of the ditch (Figure 6-1). Samples will be collected within the first six inches below ditch bottom. The field methods will be consistent with the Work Plan.

Additional soil samples will also be collected from AOC 6. Six sample locations (SB-79 through SB-84) will be installed on approximate 100-foot centers (Figure 6-1). The samples will be collected from depths of first six inches and 18 to 24 inches below ground surface (bgs).

Samples will be placed in new, laboratory provided bottles and preserved on ice until delivered under chain of custody to the laboratory and analyzed for the site-specific list of constituents by the following methods:

- Volatile Organic Compounds (VOCs) by Method SW-846 8260B;
- Semivolatile Organic Compounds (SVOCs) by Method SW-846 8270 Low Level; and
- Semivolatile Organic Compounds (SVOCs) by Method SW-846 8270 SIMS.

9. Source area soil assessment of the water treatment and boiler system (SWMU 6) components and the aboveground storage tanks (SWMU 8) is required. Therefore, propose how SWMUs 6 and 8 will be assessed to determine whether chemicals of concern (COCs) are present above assessment levels and critical PCLs, and if so, delineate the extent (horizontal and vertical) of the COCs to define the affected environmental media and PCLE zones.

RESPONSE:

SWMU 6

Soil data have been collected in the vicinity of SWMU 6 (a 10,000 square foot area) at six locations: SB-04, SS0-G10, SS0-G09, SS0-F09, SSO-F10, and WPW-S-007P. These sample locations are located within 100 feet of SWMU 6. This density of sampling satisfies the guidance presented in *RCRA Facility Investigation (RFI) Guidance* (EPA 530/SW-89-031), which states that samples may be taken on a 200-foot grid. UPRR proposes to collect additional soil samples at SB-76 and SB-77 to the north of SWMU 6 and SB-78 to the southeast of SWMU 6 (Figure 6-2) to delineate the extent of the subsurface soil PCLE zone at SB-04. UPRR believes that these locations should provide enough data to identify a remedy.

SWMU 8

Four soil sample locations have been collected within SWMU 8 (a 22,500 square foot area): SS0-F11, AOC-5E, SB-55, and SB-53. An additional seven soil sample locations have been installed within approximately 20 feet of SWMU 8: AOC-3E, AOC-3W, AOC-5W, MW-18A, SSO-G11, SB-53, and SB-54. UPRR proposes to collect additional soil samples to the south of SWMU 8 from SB-97 and SB-98 in response to Comment No. 8 and at SB-57, as proposed in the June 10, 2004 Revised APAR. UPRR believes that these locations should provide enough data within and surrounding SWMU 8 to identify a remedy and proceed with remediation activities.

10. Identify where the cooling tower was located and propose source area assessment at this unit for chromium and any other potential COC.

RESPONSE:

As part of the historical research in preparation of the June 10, 2004 Revised APAR, the location the cooling tower was not identified. UPRR will review the available documentation again in an attempt to determine the location of the cooling tower. If information is available, it will be incorporated into the Addendum to the Revised APAR.

Chromium is not a Constituent of Concern (COC) on the RCRA Permit, Compliance Plan or RFI Work Plan. UPRR does not propose adding chromium to the COC list because the current list of COCs are the primary indicators for wood treating facilities, as approved by TCEQ for the RFI, and no changes to site conditions or the level of understanding has occurred that warrants a change to the COCs list.

11. Specifically show where the wood treatment units and drip pads were located at the facility and demonstrate that the soil assessment especially targeted these units by the placement of borings within and immediately adjacent to these units. Propose additional soil assessment if the units and pads were not assessed as indicated above.

RESPONSE:

As part of the June 10, 2004 Revised APAR production, UPRR has reviewed a large volume of information regarding the site. The exact locations of the wood treatment unit(s) and associated drip pad(s) were not identified. A reassessment of the available documentation will be completed and if new information is available, these areas will be evaluated to assess whether additional sampling is necessary.

12. Revise *Figure 6-2 Subsurface Soil PCLE Zone Map* to propose the following additional soil borings to delineate the extent of subsurface soil PCLE zones: a) one boring west, one boring north, and one boring east of SB-03; b) one boring east of SB-07/SB-08; c) one boring west of MW-17 and MW-31A; d) one boring east of MW-30A; e) one boring west, one boring north, and one boring east of SB-04; and, f) one boring at SB-07/SB-08 to delineate the vertical extent of affected soils.

RESPONSE:

12 A & B. The PCLE lines around SB-03 and SB-07/SB-08 have been revised to reflect one PCLE zone instead of two (Figure 6-2). Therefore, the borings requested around SB-03 (Comment No. 12a) and SB-07/SB-08 (Comment No. 12b) have been combined. UPRR agrees to install one boring to the west (SB-72), north (SB-73), and east (SB-74) of the PCLE zone around SB-03 and SB-07/SB-08 (Figure 6-2).

12 C & D. In response to Comment No. 13, the PCLE zones near MW-17, MW-30A, and MW-32A have been combined into one PCLE zone. UPRR will install one boring to the west (SB-75) and to the east (SB-76) of the PCLE zone. The results from the soil borings will be used to evaluate potential risk and a remedy for soil, if warranted.

12 E. UPRR agrees to install one boring to the north of SB-04 (SB-77) to further define the northern extent of affected soil near the property boundary and one boring to the east of SB-04 (SB-78). UPRR has already proposed installing a boring to the west of SB-04 in Response 12D (SB-76; Figure 6-2). The results from these borings will be used to evaluate potential risk and a remedy for soil, if warranted.

12 F. The vertical extent of affected soil at SB-07 and SB-08 is defined by the A-TZ, which was noted to begin at 22 feet bgs on the boring logs for the two sample locations. Because

concentrations of constituents in saturated soils are evaluated as part of the ground water assessment, subsurface soil results from saturated intervals have been removed from Figure 6-2. TCEQ Regulatory Guidance (RG-366/TRRP-12) states that: "If a ground water assessment documents that ground water is affected by COCs, then the entire soil column bound by the horizontal assessment level from the surface to the affected ground water-bearing unit may be considered a PCLE zone. Declaring the entire soil column a PCLE zone means that no further vertical delineation above the affected ground water-bearing unit is needed." The lateral extent of the ground water A-TZ PCLE zone includes the locations of SB-07 and SB-08 and soil samples were collected immediately above the water-bearing zone. Therefore, additional subsurface soil sampling in the area is not warranted.

13. Revise *Figure 6-2 Subsurface Soil PCLE Zone Map* to show the subsurface soil PCLE zone to be connected between onsite MW-17/MW-30A and offsite MW-32A.

RESPONSE:

Figure 6-2 Subsurface Soil PCLE Zone Map will be revised to show the subsurface PCLE zone as connected between MW-17/MW-30A and MW-32A.

14. Revise *Figure 7-1 A-TZ Groundwater PCLE Zone Map* to propose the following additional monitor wells: a) one in between proposed MW-38A and CPT/DP-31A; b) one in between CPT-36A and CPT-37A; c) one east-northeast of MW-18A, just north of the railroad tracks, and west of Lockwood Street; d) one within the Recent Process Area (SWMU 4); e) two within the Original Process Area (SWMU 5); f) one within SWMU 6; and, g) two within SWMU 8. Also, revise *Figure 7-1* to move the locations of proposed monitor wells: a) MW-35A and MW-36A to the south; b) MW-49A to the northeast, south of the railroad tracks, and west of Lockwood Street; c) MW-50A to the north and just south of the railroad tracks; and, d) MW-51A to the north-northeast and just south of the railroad tracks.

RESPONSE:

14 A. A review of the March 2004 ground water elevation data indicates that ground water in the A-TZ flows to the north/northeast from MW-12A along the western property boundary. UPRR proposes to move MW-38A to the north along Kashmere Street to delineate the extent of affected ground water in the A-TZ downgradient of MW-12A (Figure 7-1). Based on the ground water flow direction and available analytical results, UPRR believes the new proposed location will more adequately define the extent of affected ground water.

14 B. UPRR does not agree with the suggestion that an additional monitor well is needed between CPT-36A and CPT-37A. Three monitor wells are located within 200 feet of CPT-36A and CPT-37A: MW-18A and proposed wells MW-41A and MW-44A (Figure 7-1). The extent of affected ground water in the A-TZ near CPT-36A and CPT-37A will be evaluated using proposed wells MW-36A and MW-44A. These wells provide sufficient characterization of this portion of the site, and the PCLE zone should be adequately defined by these wells.

14 C. UPRR agrees to install a monitor well (to be named MW-44A) east-northeast of MW-18A, north of the railroad tracks and west of Lockwood (Figure 7-1). The well will be installed off site due to access restrictions, as discussed in Response 15A.

14 D&F. Installation of monitor wells in both SWMU 4 and SWMU 6 (Comment No. 14f) would place two wells at the same depth within 100 feet of each other. UPRR proposes to install a single monitor well (referred to as MW-52A) at the approximate boundary between SWMUs 4 and 6 (Figure 7-1). UPRR believes that the proposed well location, which is near SB-04, is adequate to evaluate potential releases to ground water from both SWMUs, which managed the same type of material.

14 E. MW-31A is already present in SWMU 5 (Figure 7-1). In addition, the following five wells are within 400 feet of the center of SWMU 5:

- MW-16 to the west and upgradient of SWMU 5;
- Proposed MW-52A to the east and downgradient of SWMU 5;
- MW-20A to the northwest and cross-gradient of SWMU 5; and
- MW-17 and MW-30A to the north and downgradient of SWMU 5.

The A-TZ PCLE zone includes SWMU 5, MW-18A, and the five surrounding wells. UPRR believes these wells are sufficient to characterize the A-TZ ground water beneath and surrounding SWMU 5; therefore, no additional wells are proposed for SWMU 5.

14 G. Soil does not appear to be significantly impacted in SWMU 8 based on a review of the soil results for MW-18A (located on the east side of SWMU-8). That is, there are no reported exceedances of TRRP PCLs in subsurface soil. The ground water data collected at MW-18A indicates only slight exceedances of the TRRP PCLs. Ground water flow in the A-TZ appears to be toward MW-18A in the eastern portion of the site. MW-25A and proposed well MW-44A are approximately 400 and 200 feet, respectively, to the northeast of SWMU 8 and proposed well MW-49A is approximately 450 feet to the south of SWMU 8. Based on soil quality and ground water flow direction, UPRR proposes that MW-18A is representative of ground water in SWMU 8; therefore, no additional wells are warranted.

14-Movement of Proposed Monitor Wells

UPRR agrees to the movement of proposed monitor well MW-35A (Figure 7-1). As discussed in Response 14B, the extent of affected ground water in the A-TZ near CPT-36A and CPT-37A will be evaluated using proposed wells MW-36A and MW-44A.

As discussed in our October 1, 2004 conversation, instead of moving proposed monitor wells MW-49A, MW-50A, and MW-51A, two temporary ground water sampling points (DP-45A and DP-46A; Figure 7-1) will be installed to refine the southern extent of the A-TZ PCLE zone. Grab ground water samples will be collected from temporary sampling points from which pre-packed screens have been placed at depth utilizing direct-push drilling technology.

15. Revise *Figure 7-3 C-TZ Groundwater PCLE Zone Map* to propose the following additional monitor wells: a) one east of MW-18C, south of MW-44C, and just north of the railroad tracks; b) one west of MW-18C within SWMU 8; and, c) one within SWMU 5. Also, revise *Figure 7-3* to move the locations of proposed monitor wells: a) MW-52C and MW-55C to the south; and, b) MW-47C to the north-northwest and just south of the railroad tracks.

RESPONSE:

15A. The proposed well cannot be placed in the requested location due to multiple underground utilities that run immediately adjacent and parallel to the rail lines within the railroad Right-of-Way. In addition a decreasing trend in concentrations is reported from MW-45C (an upgradient well to the northeast of MW-18C) with a reported naphthalene concentration of 24.01 mg/L (a PCL exceedance) to MW-44C and to MW-19C (a downgradient well to the southwest of MW-18C) with a reported naphthalene concentration of 0.001 mg/L (below the PCL). A review of the soil results reported at MW-18A indicate that subsurface soil is not affected above PCLs. Based on access limitations, ground water concentration gradients, and subsurface soil quality, UPRR believes that MW-25C, MW-34C, MW-44C, and MW-45C provide sufficient upgradient data to the east of MW-18C.

15B. As discussed in Response 15A, a decreasing concentration gradient is apparent from MW-45C downgradient to MW-44C and to MW-19C and MW-23C. UPRR believes that MW-19C and MW-23C provide sufficient data to the west of MW-18C and downgradient from SWMU 8.

15C. UPRR agrees to move proposed monitor well MW-16C into SWMU 5, near AOC 1 and SWMU 9 (renamed MW-55C; Figure 7-3).

15-Movement of Proposed Monitor Wells

As requested, UPRR agrees to move proposed monitor wells MW-52C (now called MW-35C) and MW-55C (now called MW-33C) (Figure 7-3). However, UPRR proposes that MW-47C remain at the proposed location due to Health and Safety concerns. TCEQ's proposed location would place MW-47C in a high traffic area of commercial vehicles. A site visit will be completed to assess whether a location closer to the TCEQ's request (i.e., just south of the rail lines) can be identified.

16. Pentachlorophenol (PCP) is a COC at the facility. Chlorinated dibenzodioxins and chlorinated dibenzofurans (collectively referred to as dioxins) exist as impurities in commercial grade PCP and are considered companion products (30 TAC 350.71(k)) to PCP. Therefore, propose additional assessment of the affected property for dioxins to determine whether they are present above assessment levels and critical PCLs at source areas, and if so, delineate the extent (horizontal and vertical) of the dioxins to define the affected environmental media and PCLE zones. A COC-specific approach for evaluating dioxins in soil is described in 30 TAC §350.76(e) and is also applicable to groundwater.

RESPONSE:

UPRR proposes to collect a sample of free product from monitor well MW-25C. The sample will then be analyzed for Pentachlorophenol (SW-846 8270) and dioxins (SW-846 8290) to determine if a positive correlation exists.

17. Revise the text and tables in *Appendix F Screening COCs from PCL Development* to identify the criteria used to screen COCs from PCL development as 30 Texas Administrative Code §350.71(k)(1), §350.71(k)(2)(A), §350.71(k)(2)(B) or (C), §350.71(k)(2)(D), §350.71(k)(2)(E), or §350.71(k)(3).

RESPONSE:

The text and tables in *Appendix F Screening COCs from PCL Development* will be revised to reflect the criteria used to screen COCs from PCL development per 30 Texas Administrative Code §350.71(k).

Figures

November 19, 2004
Project No. 0014419/0030

Environmental Resources Management
15810 Park Ten Place, Suite 300
Houston, Texas 77084-5140
(281) 600-1000

OVERSIZE DOCUMENTS, MAPS & PHOTOS

Record Series: 1HW

File #: 31547 BBC# 50156883

The below listed documents, from the above referenced file, that belong in this location in the file were not microfilmed because of their size and/or media format. See the Central File Room staff for the location of the following oversize documents and/or photographs:

DATE ON DOCUMENT	DESCRIPTION OF DOCUMENT
7/21/04	ERM-SOUTHWEST, INC
	4 MAPS
	Fig 6-1 Protective Concentration
	Level Exceedance Zone Surface Soil Map
	Fig 6-2 Protective Concentration Level Zone
	Subsurface Soil Map
	Fig 7-1 Protective Concentration Level
	Exceedance Zone Map A Transmissive
	Zone Groundwater Fig 7-3 Protective
	Concentration Level Zone Map C
	Transmissive Zone Groundwater